

Tag Jet Triggers

Using 2×10^{33} lumi hlt samples for rate calculations :

- single jet ($\eta > 3$)
- di-jet ($\Delta\eta > 2.5 - 4$)

Expect results tomorrow...

Level-1 HF Segmentation

Use pure pile-up sample at $2 \times 10^{33} / 10^{34}$:

- L1 tower = $1 \times 1, 2 \times 1, 2 \times 2, 3 \times 2$ readout towers
- L1 jet= $3 \times 3, 4 \times 4$ L1 towers

Invisible Higgs

Closer inspection reveals missing events...

New calculation :

jm_qq_qqh120_inv_1034 sample (20k events)
Level-1 TDR 10^{34} trigger table

Trigger Condition	Ind.	Cumul.	Rate / kHz
$E_t^{\text{miss}} > 150 \text{ GeV}$	19.1 %	19.1 %	0.005
$E_t^{\text{miss}} > 100 \text{ GeV} + \text{jet } (E_t > 80 \text{ GeV}, \eta < 3)$	27.5 %	36.8 %	0.1
$E_t^{\text{miss}} > 100 \text{ GeV} + \text{jet } (E_t > 80 \text{ GeV}, 3 < \eta < 5)$	15.1 %	43.3 %	
jet ($E_t > 250 \text{ GeV}, \eta < 3$)	4.0 %	45.1 %	0.4
jet ($E_t > 250 \text{ GeV}, 3 < \eta < 5$)	0.4 %	45.2 %	
2 jets ($E_t > 200 \text{ GeV}, \eta < 5$)	0.3 %	45.4 %	0.4
Total		45.4 %	-

Will repeat for low lumi when data available.